

PROCEEDINGS OF THE
ENTOMOLOGICAL SOCIETY OF WASHINGTON

Vol. 74

JUNE 1972

No. 2

NOTES ON SPECIES OF NORTH AMERICAN LEUCANIA WITH THE
DESCRIPTION OF A NEW SPECIES

(LEPIDOPTERA: NOCTUIDAE: HADENINAE)¹

JOHN G. FRANCLEMONT, *Department of Entomology,*
Cornell University, Ithaca, New York 14850

ABSTRACT—*Leucania juncicola* Guenée, 1852, is placed as a synonym of *Leucania scirpicola* Guenée, 1852, and *Leucania adjuta* (Grote), 1874, heretofore regarded as a synonym of *L. juncicola*, is confirmed as a valid species. *Leucania infatuans* is described as a new species; in the past it had been confused with *L. adjuta* (*olim juncicola*).

When Kimball was working on the lepidoptera of Florida for the "Arthropods of Florida and Neighboring Land Areas," I furnished him with determinations in some groups; one of which was the genus *Leucania*. Since that time I have had occasion to review the identifications of some of the species, and in one instance, I have come to a different conclusion. At the time I first noticed that the "species" we were calling *Leucania juncicola* was actually two very distinct species, I thought that *juncicola* Guenée could be applied to one of the species and *adjuta* Grote to the other. This proves not to be possible because the name *juncicola* was misapplied by J. B. Smith.

***Leucania adjuta* (Grote)**

Heliophila adjuta Grote, 1874. Bull. Buffalo Soc. Nat. Sci. 2:158. Type locality: "Alabama."

Following Smith, 1893, p. 188, this species was erroneously treated as a synonym of *Leucania juncicola* Guenée. Smith based his conclusions on a specimen for which Walker, 1856, p. 96, gave the data as, "a. United States. Presented by E. Doubleday, Esq." Walker only questionably determined the specimen as a variety of *juncicola*. Butler, 1890, p. 661, associated Grote's type of *adjuta* with the specimen that Walker had considered a possible variety of *juncicola*, and he wrote, "The true *juncicola* seems to be very closely allied to, if distinct from,

¹ Immediate publication secured by full payment of page charges—Editor.

L. scirpicola." Smith, during a visit to the British Museum, somehow concluded that the Doubleday specimen had been seen by Guenée, and he refers to it, 1893, p. 188, as "apparently determined by Guenée." Smith further states, "The specimen agrees well with the description [*juncicola*] and may, I think, be fairly considered as as representative of *juncicola* which, then, is the same as *adjuta*." It is difficult to understand how Smith could have made this statement. He could not have made a critical comparison between the original description of *juncicola* and the species that he identified as *juncicola*. Hampson, 1905, p. 532, made no mention of the Doubleday specimen in his list of specimens of *Cirphis juncicola* in the British Museum (Natural History); however, he accepted the synonymy of *adjuta* with *juncicola*. As of this moment, I have not been able to trace the specimen, but Hampson may have moved it to the series of another species.

It is surprising that no worker in the past considered Butler's comment and made a study of Guenée's description of *juncicola* and specimens of the species identified as such. If they had, they would have realized that Guenée was too knowledgeable a lepidopterist to have described a species of the general appearance of *scirpicola* immediately after a species with a forewing pattern very similar to, almost identical with, that of *Leucania humidicola* Guenée, and to have said that that species, *scirpicola*, was extremely similar in markings to *juncicola*. ("Elle est extrêmement voisine de la *Juncicola* par les dessins; . . .")

The characters given by Guenée in his description of *juncicola* and which preclude the application of that name to either the species identified as *adjuta* or the new species described herein are: 1) the color, yellowish-gray, color of dried reed ("gris-jaunâtre ou couleur de roseau desséché, . . ."); the present species has the forewing similar to that of *pallens* and *humidicola*; 2) the fine black flecks (atoms); this species has no such flecking of black scales nor does the new species; 3) the median vein black; it is white with a brownish shade below in this species! 4) a small, oblong, white spot in the blackish shade; this species has a black dot at the end of the cell; 5) hindwing dirty white without border or dusky tint (even in the female); the photographs of the moths show that both *adjuta* and the new species have some of the veins of the hindwing infuscate, and the general color in the new species is pearly white and in *adjuta* light to dark fuscous, especially toward the outer margin; 6) two lateral lines of black scales on the ventral surface of the abdomen; there are no such lines in either *adjuta* or the new species. All the characters given by Guenée are present in the species identified as *scirpicola* by American workers.

Leucania adjuta occurs from northern Florida to eastern Texas and north to the Carolinas; it strays, at least, as far north as Cape Cod in the fall. I have taken it at Arlington, Virginia from the 31st of August

to the first of November. In southern Alabama I took it from the 13th of March to the 16th of April in 1943 and in coastal South Carolina as early as the latter half of March.

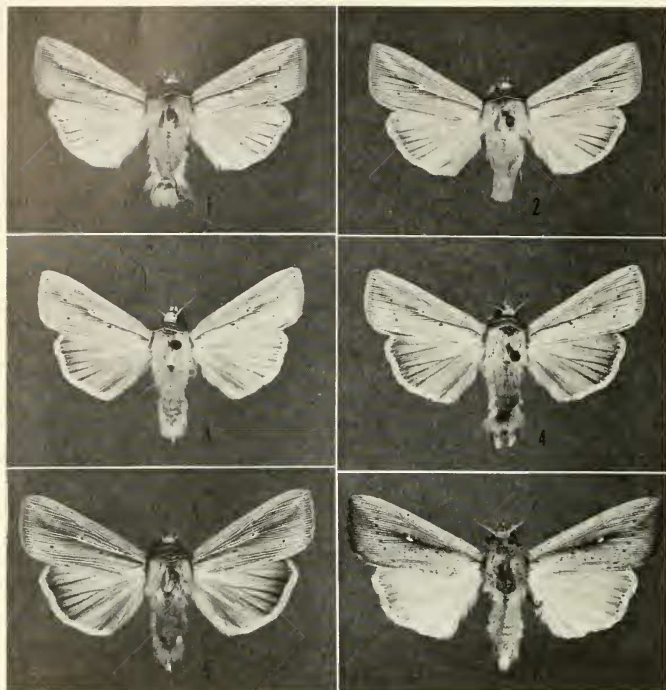
***Leucania infatuans*, n. sp.**

Leucania juncicola Kimball (*nec Guenée*), 1965. The Lepidoptera of Florida, Arthropods of Florida and Neighboring Land Areas, 1: 91, pl. 12, fig. 11.

This species is very similar to, and closely related to, *Leucania humidicola* Guenée, 1852; it differs from that species by its larger size and the more or less evident marginal infuscation and the dark scales on the outerhalf of some of the veins of the hindwing. In the United States it has been confused with *adjuta*, but it differs from that species in the brighter tint of yellow of the forewing and the white ground color of the hindwing. In *adjuta* the ground color of the hindwing is distinctly fuscous, and the veins are more extensively dark scaled.

Description: Head with palpal segments one and two light brown on outer-side and with a heavy scattering of black scales, third segment black below, inner side whitish; front with a broad band of light brown scales on lower third, above this a band of whitish scales, then a narrow band of brown scales followed by a narrow band of yellowish scales; vertex yellow with brown scales between the antennae. Thorax with collar (patagia) yellow with four conspicuous lines of black scales tipped with white, lower most line least conspicuous and basally pinkish brown; behind collar a mid dorsal tuft of pinkish brown, white tipped scales; tegulae and disk of thorax yellow, former with a few black scales. Forewings light, straw yellow with some reddish brown reflections in some lights; t. p. line indicated on costa by black scales and at least by black scale dots on M_2 and Cu_3 , often by vague indications of a few black scales on some of the other veins; median vein (Cu) white to end of cell, a brown shade with some conspicuous black scales below median vein, a black dot below median vein, a little beyond middle of cell, and another black dot at the end of the white line on the median vein; a vague dark shade from apex to end of cell at veins M_2 , M_3 , and Cu_1 ; terminal black dots between some of the veins; veins white with narrow lines of reddish brown scales on both sides. Hindwing somewhat hyaline, pearly white and sometimes with a slight dusky cast; a fuscous terminal line and black dots between the veins; at least some of the veins with dark scaling on the outer half. Lower surface of wings shining white; a black dot on costa at inception of t. p. line; disk of forewing light reddish; a blackish line below subcosta; terminal black dots between the veins on both forewing and hindwing.

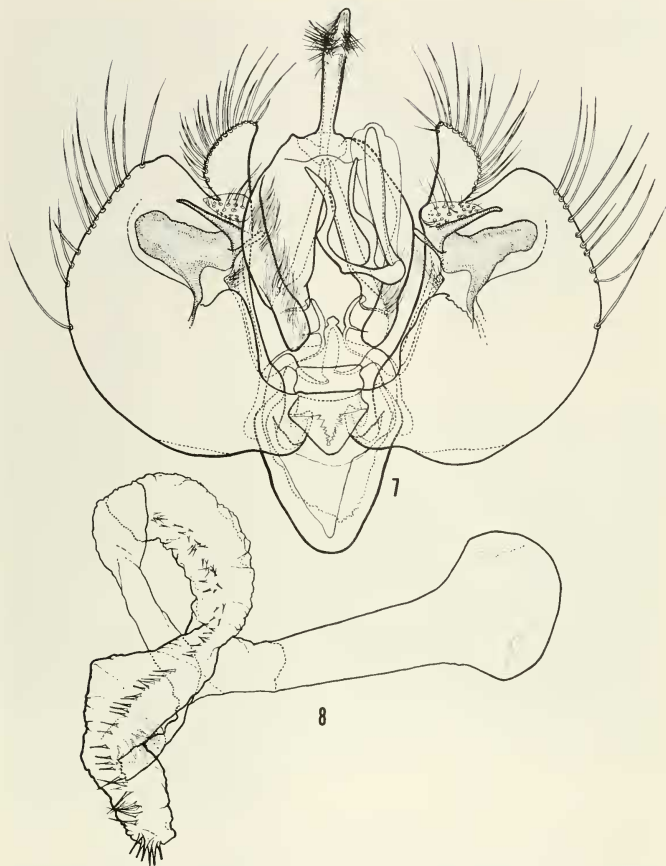
Male genitalia as figured; similar to those of *humidicola*, but differing in the longer, more linear uncus and in the broader cucullus of the valve; the armature of the vesica very similar to *humidicola*, but differing in the greater number of cornuti in the two clusters of heavy cornuti. The male genitalia of *adjuta* have a long, linear cucullus and a subquadrate clasper plate instead of ligulate one; the vesica of *adjuta* is armed with only two or three stout cornuti with blunt, rounded apices.



10 mm

FIGS. 1-2. *Leucania infatuans*, n. sp.: 1, HOLOTYPE, male, Oneco, Manatee Co., Florida, 21 March 1957, J. C. Franclemont (Franclemont Collection); 2, paratype, female, same data as holotype. FIGS. 3-5. *L. adjuta* Grote: 3, male, Camp Rucker, Ozark, Alabama, 16 April 1943, J. C. Franclemont (Franclemont Collection); 4, male, Arlington, Virginia, 19 October 1950, J. C. Franclemont (Franclemont Collection); 5, male, Wedge Plantation, McCellanville, Charleston Co., South Carolina, 12 October 1968, reared ex ovo, J. C. Franclemont (Franclemont Collection). FIG. 6. *L. scirpicola* Guenée, male, Oneco, Manatee Co., Florida, 20 March 1955, J. C. Franclemont (Franclemont Collection).

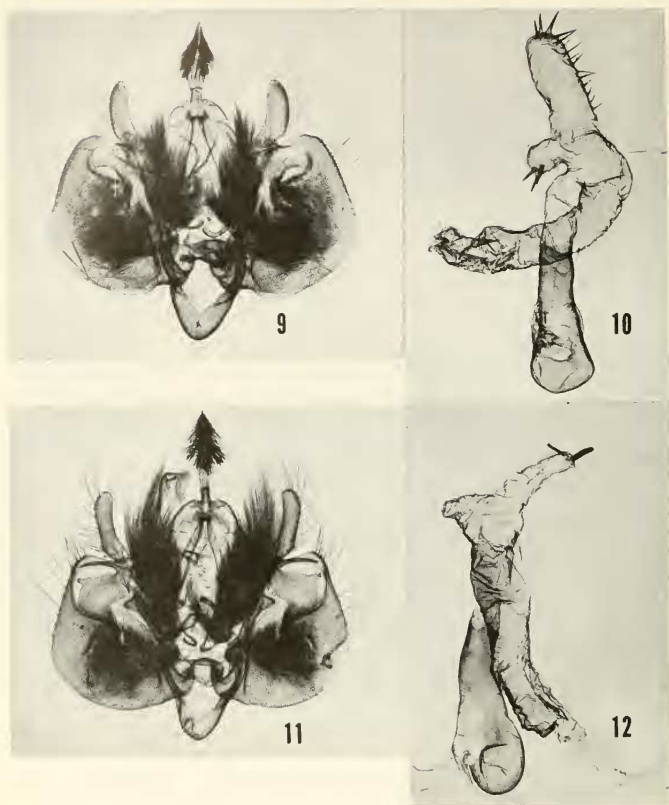
Female genitalia of typical form for the genus; similar to *humidicola*, but with the ductus bursae two and one-half times as long as in that species and with the appendix bursae more massive. In *adjuta* the ductus bursae is about two-thirds as long as that in *infatuans* and the appendix bursae arises from just below the middle of the ductus bursae; both ductus bursae and appendix bursae less massive than in *infatuans*.



FIGS. 7-8. *Leucania infatuans*, n. sp.: 7, male genitalia with aedeagus removed, Oneco, Manatee Co., Florida, 22 May 1953, reared ex ovo, J. G. Franclemont, slide JGF 3508; 8, aedeagus of male genitalia, slide JGF 3508.

TYPE: Male. Oneco, Manatee County, Florida, 21 March 1957, J. G. Franclemont (Franclemont Collection).

PARATYPES. 27 males and 41 females. Oneco, Manatee County, Florida, 21 March-4 April, 1953-1957, J. G. Franclemont. 31 males



FIGS. 9-10. *Leucania humidicola* Guenée: 9, male genitalia with aedeagus removed, Moengo, Boven, Cottica R., Surinam, May 14, 1927, Cornell Univ. Lot 760 Sub 49, slide JGF C625 (Cornell University Collection); 10, aedeagus of male genitalia, slide JGF C625. FIGS. 11-12. *L. adjuta* Grote: 11, male genitalia with aedeagus removed, Camp Rucker, Ozark, Alabama, 15 March 1943, J. G. Franclemont, slide JGF 2430; 12, aedeagus of male genitalia, slide JGF 2430.

and 27 females. Oneco, Manatee County, Florida, 19-25 May, 1953. Reared from ova, larvae fed on *Dactylis glomerata* L., J. G. Franclemont (Franclemont Collection). Paratypes will be distributed to other collections.

Other specimens are before me from as far south as Florida City,

Dade County, Florida and as far north as Elfers, Pasco County, Florida. The species appears to be limited to the southern two-thirds of peninsular Florida.

***Leucania scirpicola* Guenée**

Leucania scirpicola Guenée, 1852. Histoire Naturelle des Insectes, Species Général des Lépidoptères, vol. 5 (Noctuélites vol. 1), p. 84.

Type locality: "Floride. Coll. Doubleday. Amérique boréale. Coll. Bdv. Deux ♂."

Leucania juncicola Guenée, 1852. Histoire Naturelle des Insectes, Species Général des Lépidoptères, vol. 5 (Noctuélites, vol. 1), p. 83. NEW SYNONYM.

Type locality: "Amérique septentrionale. Coll. Bdv. Une ♀."

Leucania pendens Smith, 1905. Can. Ent. 37:66.

Type locality: "Chokaloskee, Florida."

Leucania calpota Smith, 1908. Jour. New York Ent. Soc. 16:95.

Type locality: "Harris County, Texas."

The type of *Leucania juncicola* is apparently lost. There is no record that it was present in the Boisduval collection when Charles Oberthür obtained that collection, and it was not in the material that William Barnes purchased from the Charles Oberthür estate.

A careful study of the original description of *L. juncicola*, see the comments under *L. adjuta*, proves that *juncicola* is the female sex of *scirpicola*, described from the male sex only. The species is moderately variable. The forewing color may be dark and intense or pale; in those specimens with the forewings light in color, the fringe is almost devoid of dark scales. The hindwings may show a uniform ground with almost no indication of dark shading toward the outer margin.

Although *Leucania juncicola* has page precedence, I am designating it a junior synonym of *Leucania scirpicola* because it would cause undue confusion to change the name from one species to another.

The drawings are by Mrs. Margaret Menadue, and the photographs are by the author.

REFERENCES

- BUTLER, A. G. 1890. Further notes on the synonymy of the genera of Noctuites. Trans. Ent. Soc. London [38]:653-691.
- HAMPSON, G. F. 1905. Catalogue of the Lepidoptera Phalaenae in the British Museum. Volume 5. 1-634, plates 78-95. London. British Museum (Natural History).
- KIMBALL, C. P. 1965. The Lepidoptera of Florida. Arthropods of Florida and neighboring land areas. Volume 1. i-v, 1-363, 26 plates. Gainesville. Division of Plant Industry.
- SMITH, J. B. 1893. Catalogue of the lepidopterous superfamily Noctuidae found in Boreal America. Bull. U. S. Natl. Mus. 44:1-424. Washington. Government Printing Office.
- WALKER, F. 1856. List of the specimens of lepidopterous insects in the collection of the British Museum. Part 9. 1-252. London. British Museum.